UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,885	07/28/2003	Robert P. Enns	1014-072US01 / JNP-0323	3864

72689 7590 02/25/2008	EXAMINER
SHUMAKER & SIEFFERT, P.A	DAYE, CHELCIE L
1625 RADIO DRIVE , SUITE 300	

ART UNIT	PAPER NUMBER
2161	

NOTIFICATION DATE	DELIVERY MODE
02/25/2008	ELECTRONIC

SHUMAKER & SIEFFERT, P.A
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@ssiplaw.com

	Application No.	Applicant(s)
Office Action Summary	10/628,885	ENNS ET AL.
	Examiner	Art Unit	
	CHELCIE DAYE	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11/21/07*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-24 and 26-56* is/are pending in the application.

   4a) Of the above claim(s) *16-18 and 36-55* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-15,19-24,26-35, and 56* _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This action is issued in response to applicant's amendment filed November 21,

2007.

2.   Claims 1-4,6-24 and 26-56 are presented. Claim 56 is added and claims 5 and

25 are cancelled.

3.   Claims 16-18 and 36-55 remain withdrawn.

4.   Claims 1-4,6-15,19-24,26-35, and 56 are pending.

5.   Applicant's arguments filed November 21, 2007, have been fully considered but

they are not persuasive.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   **Claims 1-3,6-11,15,22-24,26-31,35, and 56 are rejected under 35 U.S.C.**

103(a) as being unpatentable over Valois (US Patent Application No.

20040260818) filed June 23, 2003, in view of Delany (US Patent Application No.

20020156879) filed November 30, 2001.

Regarding Claims 1,22, and 56, Valois discloses a method comprising:

storing authorization data that defines an access control attribute ([0058],

lines 4-10, Valois)[1] and an associated regular expression specifying a textual

pattern ([0057], lines 4-9, Valois). However, Valois is silent with respect to the

access control attribute is a coarse-grain access control attribute defining access

control rights for a resource provided by a device. On the other hand, Delany

discloses the access control attribute is a coarse-grain access control attribute

defining access control rights for a resource provided by a device ([0118],

Delany). Valois and Delany are analogous art because they are from the same

field of endeavor of relating to a system that provides authorization compliance

validation with a security policy. It would have been obvious to one of ordinary

skill in the art at the time of the invention to incorporate Delany's teachings into

the Valois system. A skilled artisan would have been motivated to combine in

order to achieve the level of detail at which the data would have been

considered. As a result, coarse-grain access provides higher performance

through more optimized protocols and the data tends to work on contiguous

regions at a time. Therefore, the combination of Valois in view of Delany,

disclose receiving a command from a client, wherein the command requests

access to configuration data for the resource of the device ([0159] and [0165],

Delany); evaluating the command using the regular expression to determine

whether the command matches the textual pattern ([0118], lines 19-26, Delany);

and controlling access to the configuration data by the client based on the

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[1] Examiner Notes: Authorization data corresponds to "references" and the definition is an attribute that is

coarse-grain access control attribute and the evaluation of the regular expression
([0159], lines 1-10, Delany).

Regarding Claims 2 and 23, the combination of Valois in view of Delany,
disclose a method wherein controlling access comprises

allowing access to the configuration data when the access control attribute
denies access to the resource ([0067], lines 1-4, Valois) and the textual pattern of
the regular expression matches the command ([0117], lines 18-20 and [0118],
lines19-26, Delany).

Regarding Claims 3 and 24, the combination of Valois in view of Delany,
disclose a method wherein controlling access comprises

denying access to the configuration data when the access control attribute
grants access to the resource ([0067], lines 5-9, Valois) and the textual pattern of
the regular expression matches the command ([0117], lines 18-20 and [0118],
lines19-26, Delany).

Regarding Claims 6 and 26, the combination of Valois in view of Delany,
disclose a method wherein the coarse-grain access control attribute comprises a

part of the Access Control List (ACL).

set of permission bits, and each of the permission bits is associated with a

respective group of the resources ([0161], lines 3-5, Delany).

Regarding Claims 7 and 27, the combination of Valois in view of Delany,

disclose a method further comprising receiving the command from the client via a

command line interface ([0199], lines 2-11, Delany)[2].

Regarding Claims 8 and 28, the combination of Valois in view of Delany,

disclose a method wherein evaluating the command comprises evaluating the

command in real-time ([0383], lines 9-14, Delany) while the client inputs the

command via the command line interface ([0199], lines 2-11, Delany).

Regarding Claims 9 and 29, the combination of Valois in view of Delany,

disclose a method wherein the configuration data is arranged in the form of a

multi-level configuration hierarchy having a plurality of objects (Fig.5, [0142],

lines 1-2, Delany), and each of the objects represents a portion of the

configuration data that relates to one or more resources of the device ([0142],

lines 2-5, Delany).

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[2] Examiner Notes: Receiving the command from a client corresponds to "a user can request..." and the interface corresponds to "GUI".

Regarding Claims 10 and 30, the combination of Valois in view of Delany, disclose a method wherein the objects have respective textual labels ([0143], lines 1-4, Delany) and the regular expression defines the textual pattern to match the textual labels ([0057], lines 4-9, Valois) of a set of one or more of the objects within the configuration hierarchy (Fig.5, Delany).

Regarding Claims 11 and 31, the combination of Valois in view of Delany, disclose a method wherein evaluating the command comprises applying the regular expression to the command ([0099], lines 1-7, Valois) to determine whether the command specifies any of the objects within the set ([0142], lines 2-5, Delany).

Regarding Claims 15 and 35, the combination of Valois in view of Delany, disclose a method wherein controlling access comprises controlling access to configuration data of a router ([0053], lines 6-10, Valois).

8.   **Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Valois (US Patent Publication No. 2004/0260818) filed June 23, 2003, as applied to claims 1-3,15,22-24, and 35 above, and further in view of Mitra (US Patent No. 6,973,460) filed November 26, 2002.**

Regarding Claim 4, Valois discloses a method for storing authorization data ([0058], lines 4-10, Valois). However, Valois does not explicitly disclose storing the authorization data as a class that conforms to a class syntax. On the other hand, Mitra discloses storing the authorization data as a class that conforms to a class syntax (column 8, lines 7-18, Mitra). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Mitra's teaching into the Valois system. A skilled artisan would have been motivated to combine the two references as suggested by Mitra (column 7, lines 48-52), in order for the classes to be annotated such that, at run-time, useful information about how the data is organized for each of the various ways of storing the data (i.e. configuration) may be extracted from the annotations. As a result, this allows for various services to perform operations in accordance with the information.

9.   **Claims 12-14,19-21, and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Valois (US Patent Publication No. 2004/0260818) June 23, 2003, in view of Delany (US Patent Publication No. 2002/0156879) filed November 30, 2001, and further in view of Nelson (US Patent No. 6,243,713) filed August 24, 1998.**

Regarding Claims 12 and 32, the combination of Valois in view of Delany, disclose a method further comprising to automatically insert one or more meta-

characters into the regular expression ([0451-0453], lines 1-7, Delany) based on

the hierarchical arrangement of the configuration data (Fig.5, Delany). However,

Valois in view of Delany, do not explicitly disclose pre-processing the regular

expression. On the other hand, Nelson discloses pre-processing the regular

expression (column 10, lines 39-50, Nelson). It would have been obvious to one

of ordinary skill in the art at the time of the invention to incorporate Nelson's

teachings into the Valois in view of Delany system. A skilled artisan would have

been motivated to combine the two references as suggested by Nelson (column

9, lines 60-65), in order to convert component data into a list of distinctive objects

that represent the original data of the component, this is understood to perform

data reduction. Pre-processing remove any non-essential information that does

not substantially add to the quality of the system. As a result, pre-processing

saves the system time and space for capacity.

Regarding Claims 13 and 33, the combination of Valois in view of Delany

and further in view of Nelson, discloses a method further comprising:

pre-processing the regular expression (column 10, lines 39-50, Nelson) so

that the command is evaluated with the regular expression in real-time ([0383],

lines 9-14, Delany) as the client enters the command ([0199], lines 2-11, Delany).

Regarding Claims 14 and 34, the combination of Valois in view of Delany and further in view of Nelson, discloses a method wherein evaluating the command comprises evaluating the command with the pre-processed regular expression each time the client enters a token indicating a textual break within the command (column 17, lines 35-40, Nelson).

Regarding Claim 19, the combination of Valois in view of Delany and further in view of Nelson, discloses a method comprising:

receiving input ([0056], lines 3-7, Valois) defining an access control attribute ([0058], lines 4-10, Valois) and an associated regular expression that specifies a textual pattern ([0057], lines 4-9, Valois);

pre-processing the regular expression (column 10, lines 39-50, Nelson) to automatically insert one or more meta-characters into the regular expression ([0451-0453], lines 1-7, Delany);

evaluating a command in real-time using the regular expression ([0383], lines 9-14, Delany) as a client enters the command via a command line interface ([0199], lines 2-11, Delany); and

controlling access to configuration data of a device based on the evaluation ([0066], lines 1-9, Valois).

Regarding Claim 20, the combination of Valois in view of Delany and further in view of Nelson, discloses a method further comprising storing the configuration data in the form of a multi-level configuration hierarchy having a plurality of objects (Fig.5, [0142], lines 1-2, Delany), wherein pre-processing the regular expression comprises automatically inserting one or more meta-characters into the regular expression ([0451-0453], lines 1-7, Delany) based on the hierarchical arrangement of the configuration data (Fig.5, Delany).

Regarding Claim 21, the combination of Valois in view of Delany and further in view of Nelson, discloses a method wherein the regular expression defines a textual pattern that identifies one or more of the objects within the configuration hierarchy, and evaluating the command comprises:

applying the regular expression in real-time ([0383], lines 9-14, Delany) to determine whether a portion of the command that has been entered by the client matches the textual pattern ([0064], lines 1-5,Valois); and

selectively allowing the client to complete the command based on the determination ([0199], lines 2-11, Delany).

Response to Arguments

Applicant argues, Valois and Delany fail to teach "storing authorization data that defines both access control attribute and an associated regular

expression specifying a textual pattern, wherein the access control attribute is a
coarse-grain access control attribute defining access control rights for a
resource provided by a device".

Examiner respectfully disagrees. As stated in the action above, Valois discloses

a system wherein tests are performed, such as pattern-matching techniques, which are

exemplified within a test program. The test program has an example of a pattern-

matching technique such as a Global Regular Expression Print searching, which

searches files by keyword followed by a string comparison. Also, another test program

is performed for contextual parsing techniques, which is used to extract all references of

access control lists in a configuration file. The definitions and references of the access

control lists are stored in a set of data structures. The set of definitions and references

are examples of attributes of the access control list (see [0057-0058]). Valois also

teaches wherein the test programs discussed are found within a test scripts database,

which contains a collections of test scripts or expert rules that expresses a security

characteristic or policy (see [0055]). Further, Valois discusses the security policy

requiring that all ACL definitions must be references and that all ACL references must

be defined, which therefore requires a comparison of definitions versus references of

any kind of object. As such the validation engine extracts from the configuration

repository database one or more references and one or more definitions involving an

ACL and then performs comparison matching to whether the set of ACLs references

exactly matches the set of ACLs defined. If so, the program outputs a "pass" result and

if not, the program outputs a "fail" result (see [0064-0067]). Therefore, the test scripts

perform various tests for security purposes, representing authorization data; and the

different test programs discussed are located within the test scripts are representations

of authorization data defining an access control attribute and associated regular

expression specifying a textual pattern. Next, Delany disclosed "*Authentication and*

Authorization decisions are based on policy domains and policies. A policy domain is a logical

grouping of Web Server host ID's, host names, URL prefixes, and rules. Host names and URL

prefixes specify the course-grain portion of the web name space a given policy domain protects.

Rules specify the conditions in which access to requested resources is allowed or denied, and

to which end users these conditions apply" (see [0118]). As such, the combination of the

references disclose the above-argued limitation.

Applicant argues, Valois and Delany fail to teach "receiving a command

from a client, wherein the command requests access to configuration data for the

resource of the device".

Examiner respectfully disagrees. Delany teaches a user requesting to configure

rights to access attributes, wherein the user may select any of the configuration tabs

and the system determines whether the user is allowed to configure rights to access

attributes. The Configure Tab allows a user to configure various options for User

Manager, but the user must have sufficient privileges to access the tab. If the user is

allowed access, the user can perform attribute access control, which includes

controlling who has view and modify permissions for each attribute (see [0159] and

[0165]). Also, Delany shows that the identity server determines whether the request's

data store command is a query or a write to the data store. If the attempted access is a

query, the server determines whether the queried entry is already stored within the object (see [0346]). As such, the combination of the references disclose the above-argued limitation.

Applicant argues, Valois and Delany fail to teach "evaluating the command using the regular expression to determine whether the command matches the textual pattern".

Examiner respectfully disagrees. To begin, the Valois references previously discussed and taught the use of the Global Regular Expression Print (GREP) searching, which searches a file by keyword followed by a string comparison (see [0057]). Within the GREP, the searching and comparison of the keyword information corresponded to the evaluating of the command by regular expression to determine a match. However, even further, Delany disclosed the host names and URL prefixes from the policy's policy domain are logically concatenated with the policy's URL pattern. The overall pattern is compared to the incoming URL, and if there is a match, the policy's various rules are evaluated to determine whether the request should be allowed or denied (see [0118]). The steps of concatenating, comparing, and evaluating all correspond to the evaluation of the command (i.e., request) that was entered in order to determine if there was a textual pattern. It is understood that the evaluating is using the regular expression to determine if the command matches. As such, the combination of the references disclose the above-argued limitation.

Applicant argues, Valois and Delany fail to teach "controlling access to the
configuration data by the client based on the coarse-grain access control
attribute and the evaluation of the regular expressions".

Examiner respectfully disagrees. Delany teaches that the access is controlled

dependent upon who has view and modify permissions to the attribute information

within the configure tab. If the user has permission they are allowed to access such

configuration data, however if they are denied then the user does not have access (see

[0118] and [0159]).

Applicant argues Valois, Delany, and Nelson, fail to teach "pre-processing
the regular expression to automatically insert one or more meta-characters into
the regular expression".

Examiner respectfully disagrees. Nelson teaches text pre-processing operations,

which are affected by a text pre-processing module. The input text pre-processing is a

text component and the output is a set of text tokens with reference data. Text pre-

processing (1) tokenizes the text, which divides the text into tokens, (2) reduce suffixes,

which reduces words to simpler forms, (3) recognize idioms, which special sequences

of token are recognized by matching the sequences against a dictionary of special

sequences, (4) normalize dates, (5) normalize numbers, and (6) remove stop words

(see cols.10-11, lines 39-67 and 1-28). Nelson also teaches token expansions which

are used from the pre-processing of the user's input query, wherein the first step looks

for expansion operators whether directly embedded in the query by the user, or selected

via a gui. For example, in one embodiment the exclamation mark is used to invoke

semantic expansion, and the tilde is used to invoke fuzzy spelling expansion. The user

inserts these expansion operators directly into the input query. For words which have

user-specified patterns, such as regular expressions, the list of tokens is scanned and

checked against the pattern (see cols. 16-17, lines 55-67 and 1-40). As such, the

preceding explanation completely discloses the above-argued limitation.

Applicant argues the references fail to teach "evaluating a command in

real-time using the regular expression as a client enters the command <u>via a</u>

<u>command line interface</u>".

Examiner respectfully disagrees. Delany discloses the user being able to enter a

request via a GUI (see [0119] and [0383]). The examiner understands that the

command line interface is text based, however, a GUI is also text based along with

graphic abilities. Therefore, a command line interface is integrated with the GUI, with

the benefits of both.

Applicant argues, Valois and Delany fail to teach "wherein the coarse-grain

attribute comprises a set of permission bits, and each of the permission bits is

associated with a respective group of the resources".

Examiner respectfully disagrees. Delany discusses "*Attribute access control*

includes controlling who has view and modify permissions for each attribute in group identity

profiles. Additionally, e-mail notification lists can be created which are used to notify entities when a change to an attribute is requested. Administration tasks can be delegated to local administrators. An entity can choose what rights to delegate, who to delegate to, and what the scope of the delegation is." (see [0161]). Where bits are assigned to the particular resource dependent upon its permission.

Points of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chelcie Daye whose telephone number is 571-272-3891. The examiner can normally be reached on M-F, 7:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chelcie Daye
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